This presentation is for illustrative and general educational purposes only and is not intended to substitute for the official MSHA Investigation Report analysis nor is it intended to provide the sole foundation, if any, for any related enforcement actions.

### **Coal Mine Fatal Accident 2006-46**



Operator: Spring Creek Coal Company

Mine: Spring Creek Coal Company Mine

Accident Date: November 28, 2006

Classification: Powered Haulage

Location: Dist. 9, Big Horn County, Montana

Mine Type: Surface Coal Mine

Employment: 176

Production: 45,000 Tons/Day



On Tuesday, November 28, 2006, at approximately 1:05 a.m. a 50-year old haul truck operator was fatally injured in a powered haulage accident. The victim had dumped a load of coal waste material from a haul truck he was driving in the pit when he called on the radio to report that the parking brakes on the truck would not release. A mechanic responded and found the truck resting against a berm with the bed up and the engine running. The victim was found crushed beneath the left rear dual tires. There were no witnesses to the accident, thus the actual events causing the miner to be crushed under the tires are not exactly known.



The accident occurred when the frozen parking brakes released unexpectedly allowing the truck to roll forward downgrade into the berm. The victim was either thrown from the truck and was struck and crushed by the left rear dual tires or he was on the ground and struck and crushed by the tires. The accident

occurred due to an ineffective program to ensure that truck operators set the parking brake before exiting the cab of the truck. This allowed the miner to exit the truck cab and not return the parking brake toggle switch to the "on" position after the switch had been put in the "off" position to move forward to finish dumping the load. Management did not have effective maintenance procedures to ensure that water was drained from and not allowed to accumulate in the air tank/system and caused the freezing problem that was experienced at the time of the accident when the parking brakes would not release.

# ROOT CAUSE ANALYSIS

<u>Root Cause</u>: Management did not have an effective program to ensure that truck operators set the parking brakes before exiting the cab of the truck.

<u>Corrective Action</u>: The mine operator reinforced and trained all qualified operators on the company's policy to apply the parking brake before exiting the cab of a haul truck.

<u>Root Cause</u>: Ineffective maintenance procedures allowed water to accumulate in the air tank/system causing the accident.

<u>Corrective Action</u>: The mine operator should revise and enforce equipment maintenance procedures to require air tanks to be drained according to manufacturer's recommended time frequencies.

### **ENFORCEMENT ACTIONS**

§104(a) Citation No. 7621363 was issued to Spring Creek Coal Company for a violation of 30 CFR 77.404(a).

#### **Condition or Practice:**

The haul truck, Company Number 503, was not maintained in safe operating condition in that water from condensation was allowed to accumulate in the brake air system contributing to a fatal accident on November 28, 2006. The truck was being operated in Pit 3 West, where the truck operator dumped a load of waste coal. After releasing the park brake toggle switch, the park brakes would not disengage/release due to water freezing in the air system. With the truck parked, the operator exited the cab. The park brakes then released allowing the truck to go in motion. The operator was found crushed under the left rear dual tires.

§104(a) Citation No. 7621364 was issued to Spring Creek Coal Company for a violation of 30 CFR 77.1607(n).

#### **Condition or Practice:**

The haul truck, Company No. 503, was left unattended by the operator on November 28, 2006, when a fatal accident occurred in the Pit 3 West ramp area at approximately 1:05 a.m. The wheels were not turned into a berm or blocked and the truck was parked on a 5.2% grade. The operator exited the cab without setting the parking brake and the truck went in motion and struck a berm approximately 100 feet away. The operator was found crushed under the left rear tires.

# **BEST PRACTICES**

- When temperatures fall below freezing, drain condensation from air compressors at least every shift.
- Maintain dryer systems and change out desiccant filters to prevent moisture from accumulating in air hoses and valves.
- Ensure methanol levels are maintained in methanol air dryers to de-ice lines.
- Never exit a vehicle without engaging the parking brake.